Alagirusamy R

List of Publications by Year
in descending order

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84	2,231	218662	254170
papers	citations	26 h-index	43 g-index

85	85	85	1930
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optimization study on wet electrostatic powder coating process to manufacture UHMWPE/LDPE towpregs. Journal of Industrial Textiles, 2022, 51, 6686S-6704S.	2.4	3
2	Multi-parametric investigation on the properties of powder-coated UHMWPE /LDPE towpreg manufactured through wet-electrostatic technique. Powder Technology, 2022, 401, 117352.	4.2	5
3	Studies on the influence of process parameters on the protection performance of the outer layer of fire-protective clothing. Journal of Industrial Textiles, 2022, 51, 8107S-8126S.	2.4	5
4	Mechanically strong and resilient shape memory polyurethane with hexamethylene diisocyanate as mixing segment. Journal of Intelligent Material Systems and Structures, 2021, 32, 733-745.	2.5	5
5	Epoxy based sandwich composite using three-dimensional integrally woven fabric as core strengthened with additional carbon face-sheets. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 116, 104317.	3.1	6
6	An improved orthotropic elasto-plastic damage model for plain woven composites. Thin-Walled Structures, 2021, 162, 107598.	5.3	11
7	A sustainable way for surface functionalisation of PET nonwoven with novel chitosan-cinnamaldehyde cross-linked nanoparticles. Journal of Industrial and Engineering Chemistry, 2021, 99, 214-223.	5.8	8
8	Investigation of the mechanical performance of carbon/polypropylene 2D and 3D woven composites manufactured through multi-step impregnation processes. Composites Part A: Applied Science and Manufacturing, 2020, 130, 105733.	7.6	14
9	Mechanical and electromagnetic shielding behaviours of thermoplastic conductive composite: influence of yarn structure and process variables. Journal of the Textile Institute, 2020, 111, 1140-1147.	1.9	3
10	Box-Behnken technique based multi-parametric optimization of electrostatic spray coating in the manufacturing of thermoplastic composites. Materials and Manufacturing Processes, 2019, 34, 1638-1645.	4.7	20
11	Green synthesis of chitosan-cinnamaldehyde cross-linked nanoparticles: Characterization and antibacterial activity. Carbohydrate Polymers, 2019, 226, 115298.	10.2	91
12	Influence of friction spun yarn and thermally bonded roving structures on the mechanical properties of Flax/Polypropylene composites. Industrial Crops and Products, 2019, 135, 81-90.	5.2	9
13	Influence of flax/polypropylene distribution in twistless thermally bonded rovings on their composite properties. Polymer Composites, 2019, 40, 4300-4310.	4.6	4
14	Influence of various forms of polypropylene matrix (fiber, powder and film states) on the flexural strength of carbon-polypropylene composites. Composites Part B: Engineering, 2019, 166, 56-64.	12.0	28
15	Design and Development of a Test Method for Analyzing Protective Performance of Gloves Exposed to Radiant Heat Based on Computational Fluid Dynamics Analysis. Heat Transfer Engineering, 2019, 40, 95-108.	1.9	1
16	Electromagnetic absorption behaviour of carbon helical/coiled yarn woven and knitted fabrics and their composites. Journal of Thermoplastic Composite Materials, 2019, 32, 357-382.	4.2	5
17	Dry Electrostatic Spray Coated Towpregs for Thermoplastic Composites. Fibers and Polymers, 2018, 19, 364-374.	2.1	15
18	Effect of interface on composites made from DREF spun hybrid yarn with low twisted core flax yarn. Composites Part A: Applied Science and Manufacturing, 2018, 107, 260-270.	7.6	17

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19	Electromagnetic shielding effectiveness of carbon/stainless steel/polypropylene hybrid yarn-based knitted fabrics and their composites. Journal of the Textile Institute, 2018, 109, 1445-1457.	1.9	13
20	Electromagnetic absorption behaviour of ferrite loaded three phase carbon fabric composites. Smart Materials and Structures, 2018, 27, 025004.	3.5	8
21	Properties of flax-polypropylene composites made through hybrid yarn and film stacking methods. Composite Structures, 2018, 197, 63-71.	5.8	27
22	Impact properties of thermoplastic composites. Textile Progress, 2018, 50, 109-183.	2.0	27
23	Studies on flax-polypropylene based low-twist hybrid yarns for thermoplastic composite reinforcement. Journal of Reinforced Plastics and Composites, 2017, 36, 818-831.	3.1	21
24	Investigation on Shielding and Mechanical Behavior of Carbon/Stainless Steel Hybrid Yarn Woven Fabrics and Their Composites. Journal of Electronic Materials, 2017, 46, 5073-5088.	2.2	14
25	Numerical modeling of heat transfer and fluid motion in air gap between clothing and human body: Effect of air gap orientation and body movement. International Journal of Heat and Mass Transfer, 2017, 108, 271-291.	4.8	53
26	Study of aperture size and its aspect ratio of conductive hybrid yarn woven fabric on electromagnetic shielding effectiveness. Fibers and Polymers, 2017, 18, 1382-1392.	2.1	5
27	Numerical investigation of the effect of air gap orientations and heterogeneous air gap in thermal protective clothing on skin burn. International Journal of Thermal Sciences, 2017, 121, 313-321.	4.9	28
28	Effect of structural parameters on thermal protective performance and comfort characteristic of fabrics. Journal of the Textile Institute, 2017, 108, 1430-1441.	1.9	17
29	Estimation of radiative properties of thermal protective clothing. Applied Thermal Engineering, 2016, 100, 788-797.	6.0	14
30	Effect of Fabric Cover and Pore Area Distribution of Carbon/Stainless Steel/Polypropylene Hybrid Yarn-Woven Fabric on Electromagnetic Shielding Effectiveness. Journal of Electronic Materials, 2016, 45, 3087-3100.	2.2	16
31	Heat and mass transfer through thermal protective clothing â€“ A review. International Journal of Thermal Sciences, 2016, 106, 32-56.	4.9	79
32	Mechanical characterization of 3D angle-interlock Kevlar/basalt reinforced polypropylene composites. Polymer Testing, 2016, 55, 238-246.	4.8	27
33	Mechanical behavior of Kevlar/basalt reinforced polypropylene composites. Composites Part A: Applied Science and Manufacturing, 2016, 90, 642-652.	7.6	80
34	Simultaneous estimation of thermal conductivity and specific heat of thermal protective fabrics using experimental data of high heat flux exposure. Applied Thermal Engineering, 2016, 107, 785-796.	6.0	23
35	Low velocity impact response of 2D and 3D Kevlar/polypropylene composites. International Journal of Impact Engineering, 2016, 93, 136-143.	5.0	91
36	Ballistic impact response of KevlarÂ® reinforced thermoplastic composite armors. International Journal of Impact Engineering, 2016, 89, 1-13.	5.0	157

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37	Performance analysis and feasibility study of ant colony optimization, particle swarm optimization and cuckoo search algorithms for inverse heat transfer problems. International Journal of Heat and Mass Transfer, 2015, 89, 359-378.	4.8	74
38	Flame retardant polymer composites. Fibers and Polymers, 2015, 16, 705-717.	2.1	164
39	Comfort and compressional characteristics of padding bandages. Materials Science and Engineering C, 2015, 57, 215-221.	7.3	6
40	Fabrics and their composites for electromagnetic shielding applications. Textile Progress, 2015, 47, 87-161.	2.0	28
41	Liquid transmission characteristics of padding bandages under pressure. Journal of Biomaterials Applications, 2015, 30, 589-598.	2.4	1
42	Characterization of liquid transport in needle-punched nonwovens. I. Wicking under infinite liquid reservoir. Fibers and Polymers, 2014, 15, 2665-2670.	2.1	4
43	Effect of material and structure of compression bandage on interface pressure variation over time. Phlebology, 2014, 29, 376-385.	1.2	34
44	Analysis of the electromagnetic shielding behavior of stainless steel filament and PET/SS hybrid yarn incorporated conductive woven fabrics. Fibers and Polymers, 2014, 15, 2423-2427.	2.1	20
45	Electromagnetic interference shielding effectiveness of SS/PET hybrid yarn incorporated woven fabrics. Fibers and Polymers, 2014, 15, 169-174.	2.1	33
46	Heat transfer analysis and second degree burn prediction in human skin exposed to flame and radiant heat using dual phase lag phenomenon. International Journal of Heat and Mass Transfer, 2014, 78, 1068-1079.	4.8	37
47	Processing and performance of carbon/epoxy multi-scale composites containing carbon nanofibres and single walled carbon nanotubes. Journal of Polymer Research, 2013, 20, 1.	2.4	13
48	Mechanical and thermal transmission properties of carbon nanofiberâ€dispersed carbon/phenolic multiscale composites. Journal of Applied Polymer Science, 2013, 129, 2383-2392.	2.6	20
49	An approach to examine dynamic behavior of medical compression bandage. Journal of the Textile Institute, 2013, 104, 521-529.	1.9	18
50	Coating of conductive yarns for electro-textile applications. Journal of the Textile Institute, 2013, 104, 270-277.	1.9	43
51	Study of the effect of composition and construction of material on sub-bandage pressure during dynamic loading of a limb in vitro. Biorheology, 2013, 50, 83-94.	0.4	15
52	Prediction of internal pressure profile of compression bandages using stress relaxation parameters. Biorheology, 2012, 49, 1-13.	0.4	29
53	Study on heat transmission through multilayer clothing assemblies under different convective modes. Journal of the Textile Institute, 2012, 103, 777-786.	1.9	21
54	Mechanical properties of natural fibre-reinforced composites. Textile Progress, 2012, 44, 85-140.	2.0	57

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55	Analysis of sub-bandage pressure of compression bandages during exercise. Journal of Tissue Viability, 2012, 21, 115-124.	2.0	24
56	Analysis of factors governing dynamic stiffness index of medical compression bandages. Biorheology, 2012, 49, 375-384.	0.4	8
57	Effect of carbon nanofiber functionalization on the inâ€plane mechanical properties of carbon/epoxy multiscale composites. Journal of Applied Polymer Science, 2012, 125, 1951-1958.	2.6	16
58	Effect of carbon nanofiber dispersion on the tensile properties of epoxy nanocomposites. Journal of Composite Materials, 2011, 45, 2247-2256.	2.4	28
59	Development of carbon nanofibre incorporated three phase carbon/epoxy composites with enhanced mechanical, electrical and thermal properties. Composites Part A: Applied Science and Manufacturing, 2011, 42, 439-445.	7.6	72
60	Single-Walled Carbon Nanotube Incorporated Novel Three Phase Carbon/Epoxy Composite with Enhanced Properties. Journal of Nanoscience and Nanotechnology, 2011, 11, 7033-7036.	0.9	11
61	Study on needleâ€punched nonwoven fabrics made from shrinkable and nonâ€shrinkable acrylic blends. Part III: filtration characteristics. Journal of the Textile Institute, 2011, 102, 93-102.	1.9	1
62	Multilayer Interlocked Woven Fabrics: Simulation of RTM Mold Filling Operation with Preform Permeability Properties. Research Journal of Textile and Apparel, 2010, 14, 23-34.	1.1	4
63	Mechanical properties of epoxy reinforced with homogeneously dispersed carbon nanofibre. International Journal of Plastics Technology, 2010, 14, 224.	3.1	5
64	Influence of Preform Interlacement on the Low Velocity Impact Behavior of Multilayer Textile Composites. Journal of Industrial Textiles, 2010, 40, 171-185.	2.4	20
65	Studies on Preform Properties of Multilayer Interlocked Woven Structures Using Fabric Geometrical Factors. Journal of Industrial Textiles, 2010, 39, 327-346.	2.4	21
66	Tribological behaviour of multilayered textile composites: The effect of reciprocating sliding frequency. Wear, 2009, 267, 26-33.	3.1	14
67	A Review on Carbon Epoxy Nanocomposites. Journal of Reinforced Plastics and Composites, 2009, 28, 461-487.	3.1	77
68	Weaving of 3D fabrics: A critical appreciation of the developments. Textile Progress, 2009, 41, 1-58.	2.0	38
69	Properties of GF/PP Commingled Yarn Composites. Journal of Thermoplastic Composite Materials, 2008, 21, 511-523.	4.2	12
70	Compression and permeability properties of multiaxial warp-knit preforms. Journal of the Textile Institute, 2008, 99, 287-294.	1.9	5
71	Tensile properties of GF-polyester, GF-nylon, and GF-polypropylene commingled yarns. Journal of the Textile Institute, 2007, 98, 37-45.	1.9	8
72	Tribological properties of the directionally oriented warp knit GFRP composites. Wear, 2007, 263, 930-938.	3.1	43

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73	Mechanical properties of polypropylene filaments drawn on varying post spinning temperature gradients. Fibers and Polymers, 2006, 7, 432-435.	2.1	5
74	Studies on production of polypropylene filaments with increased temperature stability. Journal of Applied Polymer Science, 2006, 101, 838-842.	2.6	5
75	Knitted Preforms for Composite Applications. Journal of Industrial Textiles, 2006, 35, 295-321.	2.4	66
76	Drawing of polypropylene filaments on a gradient heater. Journal of the Textile Institute, 2005, 96, 349-354.	1.9	7
77	Effect of Jet Design on Commingling of Glass/Nylon Filaments. Journal of Thermoplastic Composite Materials, 2005, 18, 255-268.	4.2	13
78	Development and Characterization of GF/PET, GF/Nylon, and GF/PP Commingled Yarns for Thermoplastic Composites. Journal of Thermoplastic Composite Materials, 2005, 18, 269-285.	4.2	41
79	Commingled and Air Jet-textured Hybrid Yarns for Thermoplastic Composites. Journal of Industrial Textiles, 2004, 33, 223-243.	2.4	51
80	Production and Properties of High-Modulusâ€"High-Tenacity Polypropylene Filaments. Journal of Industrial Textiles, 2004, 33, 245-268.	2.4	6
81	Improved thermal bonding behaviour of polypropylene non-wovens by blending different molecular weights of PP. Fibers and Polymers, 2002, 3, 38-42.	2.1	1
82	Characterization of the Structural Integrity of Air-Jet Textured Yarns. Textile Reseach Journal, 1989, 59, 758-762.	2.2	7
83	Development of correlations and artificial neural network models to predict second-degree burn time for thermal-protective fabrics. Journal of the Textile Institute, 0, , 1-13.	1.9	3
84	Refining of Banana Fiber for Load Bearing Application through Emulsion Treatment and Its Comparison with Other Traditional Methods. Journal of Natural Fibers, 0, , 1-18.	3.1	7